

Claims

What is claimed is:

- 1 1. A sample vial for use in an automated test apparatus, the sample vial comprising:
2 a body comprising a generally cylindrical outer surface, an open end, a closed
3 end, and at least one lug about said body outer surface;
4 a cap releasably engagable with said body, said cap comprising an outer surface
5 and a torque pattern on said cap outer surface; and
6 a seal disposed between said body and said cap so as to be capable of forming a
7 substantially fluid-tight seal therebetween.
- 1 2. The sample vial of claim 1 wherein said body comprises a translucent material.
- 1 3. The sample vial of claim 1 wherein said body comprises polypropylene.
- 1 4. The sample vial of claim 1 wherein said cap further comprises knurling along an
2 outer perimeter thereof.
- 1 5. The sample vial of claim 1 wherein said cap comprises polypropylene.
- 1 6. The sample vial of claim 1 wherein said seal comprises a multicomposite
2 material.
- 1 7. The sample vial of claim 1 wherein a substantially fluid-tight seal between said
2 body and said cap is formed when between about 5 and 50 inch-pounds of torque is
3 applied.
- 1 8. The sample vial of claim 7 wherein a substantially fluid-tight seal between said
2 body and said cap is formed when about 20 inch-pounds of torque is applied.

PATENT APPLICATION

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1 9. The sample vial of claim 1 wherein said torque pattern comprises at least one
2 generally radially disposed rib.

1 10. The sample vial of claim 9 wherein said torque pattern comprises six generally
2 radially disposed equi-spaced ribs.

1 11. The sample vial of claim 1 wherein said body comprises at least one anti-torque
2 lug.

1 12. The sample vial of claim 11 wherein said body comprises a plurality of
2 circumferentially-disposed lugs.

1 13. The sample vial of claim 12 wherein said body comprises six equi-spaced
2 circumferentially-disposed lugs.

1 14. The sample vial of claim 12 wherein said plurality of circumferentially-disposed
2 lugs are disposed proximate said open end.

1 15. The sample vial of claim 1 wherein said body further comprises fluid level indicia
2 disposed on said generally cylindrical outer surface thereof.

1 16. The sample vial of claim 15 wherein said fluid level indicia comprises a frosted
2 annular band disposed circumferentially about said body outer surface.

1 17. The sample vial of claim 15 wherein said fluid level indicia comprises at least one
2 fill line.

1 18. The sample vial of claim 17 wherein said fluid level indicia comprises an upper
2 fill line and a lower fill line.

1 19. The sample vial of claim 1 wherein said cap comprises a first alignment marker
2 and said body comprises a second alignment marker, wherein said first and second
3 alignment markers indicate a fluid-tight seal when at least aligned.

1 20. The sample vial of claim 19 wherein said cap may be removed from said body by
2 the application of less than about 25 inch-pounds of torque, when said first marker is at
3 least aligned with said second marker.

1 21. The sample vial of claim 1 wherein said seal is disposed within said cap.

1 22. The sample vial of claim 1 wherein said cap further comprises a first screw thread,
2 said body further comprises a second mating screw thread, said cap and said body being
3 releasably engagable by means of said first screw thread and said second screw thread.

1 23. The sample vial of claim 1 wherein said body further comprises sample indicia.

1 24. The sample vial of claim 23 wherein said sample indicia comprises a bar code.

1 25. The sample vial of claim 1 wherein said body further comprises a flange
2 proximate said open end.

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